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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,512	01/05/2001	Raymond Kloth	112025-0074C1	6783

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EXAMINER	
NGUYEN, TOAN D	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/755,512	KLOTH, RAYMOND	
	Examiner	Art Unit	
	Toan D. Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/28/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 January 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/18/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the specification does not discuss electromagnetic signals traveling on a computer network. Appropriate correction is required.

Drawings

2. Figures 2-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. the claimed invention is directed to non-statutory subject matter. In claims 12 and 17, electromagnetic signals is a signal and it is not tangible.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 5, 7, 9-11, 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Crayford (US 6,269,098).

For claim 1, Crayford discloses method and apparatus for scaling number of virtual LANs in a switch using an indexing scheme, comprising:

receiving a frame (the received frame) at a port (figure 2, references 60 and 62, col. 5 lines 25-32) of said switch (figure 1, reference 12, col. 3 lines 43), said received frame containing one or more indicia of frame type designation (col. 7 lines 6-10 and col. 8 lines 16-17);

deriving a virtual local area network (derived VLAN) value in response to said one or more indicia of frame type designation (col. 8 lines 16-62), said derived VLAN internal to said switch (col. 3 lines 32-33 and col. 6 lines 40-42);

accessing a forwarding data base (figure 5, reference 106, col. 7 lines 23-35) with said derived VLAN value to determine a destination address (col. 8 lines 32-62); and

forwarding, in response to said derived VLAN value, said received frame to an output port for transmission to the destination (col. 8 lines 32-62 and col. 9 lines 30-33).

For claim 2, Crayford discloses said forwarding step forwarding in response to said derived VLAN value and said destination (col. 8 lines 55-61).

For claim 5, Crayford discloses wherein said indicia of frame type designation further comprise a virtual local area network established in said computer network (col. 7 lines 6-10).

For claim 7, Crayford discloses wherein said indicia of frame type designation further comprises an index value associated with a port at which said received frame was received (col. 7 line 62).

For claim 9, Crayford discloses method and apparatus for scaling number of virtual LANs in a switch using an indexing scheme, comprising:

a port (figure 2, references 60 and 62, col. 5 lines 25-32) to receive a frame (the received frame), said received frame containing one or more indicia of frame type designation (col. 7 lines 6-10 and col. 8 lines 16-17);

a parsing engine (figure 4, reference IRC 68, col. 7 lines 10-13) to derive a virtual local area network (derived VLAN) value in response to said one or more indicia of frame type designation (col. 8 lines 16-62), said derived VLAN internal to said switch (col. 3 lines 32-33 and col. 6 lines 40-42);

a forwarding data base (figure 5, reference 106, col. 7 lines 23-35) having said derived VLAN value as input and a destination address as output (col. 8 lines 32-62); and

an output port to transmit said received frame, in response to said derived VLAN value, for transmission to said destination address (col. 8 lines 32-62 and col. 9 lines 30-33).

For claim 10, Crayford discloses a forwarding engine (figure 4, reference 68, col. 8 lines 8-9) for forwarding said received frame in response to said derived VLAN value and said destination address (col. 8 lines 55-61).

For claim 1, Crayford discloses method and apparatus for scaling number of virtual LANs in a switch using an indexing scheme, comprising:

receiving a frame (the received frame) at a port (figure 2, references 60 and 62, col. 5 lines 25-32) of said switch (figure 1, reference 12, col. 3 lines 43), said received frame containing one or more indicia of frame type designation (col. 7 lines 6-10 and col. 8 lines 16-17);

deriving a virtual local area network (derived VLAN) value in response to said one or more indicia of frame type designation (col. 8 lines 16-62), said derived VLAN internal to said switch (col. 3 lines 32-33 and col. 6 lines 40-42);

accessing a forwarding data base (figure 5, reference 106, col. 7 lines 23-35) with said derived VLAN value to determine a destination address (col. 8 lines 32-62); and

forwarding, in response to said derived VLAN value, said received frame to an output port for transmission to the destination (col. 8 lines 32-62 and col. 9 lines 30-33).

For claim 13, Crayford discloses method and apparatus for scaling number of virtual LANs in a switch using an indexing scheme, comprising:

using one or more indicia of frame type designation found in a received frame a to derive a virtual local area network (derived VLAN) value (col. 7 lines 6-10 and col. 8

lines 16-62), said derived VLAN internal to said switch (col. 3 lines 32-33 and col. 6 lines 40-42);

using the derived VLAN value in making forwarding decisions (col. 8 lines 32-62 and col. 9 lines 30-33).

For claim 14, Crayford discloses controlling broadcast domains in the computer network by forwarding in response to the derived VLAN value (col. 6 lines 61-67 and col. 8 lines 32-62).

For claim 15, Crayford discloses using an indicia of a receiving port in constructing the derived VLAN value (col. 7 lines 6-10).

For claim 16, Crayford discloses method and apparatus for scaling number of virtual LANs in a switch using an indexing scheme, comprising:

using one or more indicia of frame type designation found in a received frame a to derive a virtual local area network (derived VLAN) value (col. 7 lines 6-10 and col. 8 lines 16-62), said derived VLAN internal to said switch (col. 3 lines 32-33 and col. 6 lines 40-42);

using the derived VLAN value in making forwarding decisions (col. 8 lines 32-62 and col. 9 lines 30-33).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 3-4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crayford (US 6,269,098) in view of Shani (US 6,023,563).

For claims 3-4, 6 and 8, Crayford does not expressly disclose wherein said indicia of frame type designation further comprise a protocol type. In an analogous art, Shani discloses wherein said indicia of frame type designation comprise a protocol type (Table 1, col.10 line 12). Shani further discloses wherein said indicia of frame type designation comprises a subnet value (Table 2a, col. 9 line 51 as set forth in claim 4); wherein said indicia of frame type designation comprises an IP source address (Table 1, col. 9 line 34 as set forth in claim 6); deriving a MAC address from said derived VLAN value and forwarding said received frame to a port for transmission to a destination having said MAC address (Table 1, col. 10 lines 10-12 as set forth in claim 8).

One skilled in the art would have recognized the protocol type, and would have applied Shani's database structure in Crayford's frame. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Shani's networking switch having the network presence of a bridge in Crayford's method and apparatus for scaling number of virtual LANs in a switch using an indexing scheme with the motivation being to provide a Main database structure (col. 10 lines 14-15).

Response to Arguments

9. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D. Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MAN U. PHAN
PRIMARY EXAMINER